

## FROM FIELD AND STUDY

**Two new breeding islands for Short-tailed Shearwater (*Puffinus tenuirostris*) in Archipelago of the Recherche, Western Australia** — The first Short-tailed Shearwater recorded for Western Australia was a beach-washed specimen found near Hopetoun in November 1946 (Serventy 1947, *Emu* 47:71). Since then others have been found at Esperance, near Albany and at Yallingup. Lane (1982, *Corella* 6:76) reported the first breeding birds in Western Australia, 150-200 pairs on Figure of Eight Island, Archipelago of the Recherche.

In January and November 1985 and February and April 1986 we visited 10 islands at the eastern end of the Archipelago of the Recherche to survey breeding seabirds. On 25 February we landed on Inshore (33°55'S, 122°50'E) and Ben (33°54'S, 122°45'E) Islands, 80-90 km east of Esperance. Both islands are granitic, about 1 km long, ½ km wide and less than ½ km offshore.

On Inshore Island about 200 Short-tailed Shearwater burrows were found on the south-west side of the island among low scrub of *Olearia*, *Pimelea*, *Muehlenbeckia* and *Poa*. Some burrows contained downy young, e.g. WAM A20046, which weighed 580 g.

On Ben Island about 3000 burrows were found on the steep grassy south-east slope. This breeding area was 600 m long and 60-100 m wide. Near the centre of the colony 22 burrows were counted in an area 10 m square. Thirty burrows were examined: 20 contained downy young, e.g. WAM A20048 which weighed 620 g, and one burrow contained an adult male on an empty nest of leaves and twigs. Another 500 burrows were found under soft grass and low shrubs of *Olearia* on the north-west slope.

Details of the adult male: WAM A20047, total length 415 mm, weight 640 g, wing 278 mm, tail 86 mm, entire culmen 47 mm, tarsus 45 mm, skull fully ossified, iris dark brown, mouth flesh pink, inner side of legs pinkish-grey, outer side grey, bill black with pale grey latericorn and mandibular rami.

On 20 April 1986 we observed three juvenile Short-tailed Shearwaters, unable to fly, on the water about 1 km off the south-east side of Ben Island. One was collected, it had a wing length of 247 mm, well below that of the adult listed above. On 21 April we again landed on Ben Island and examined five burrows chosen at random in the main colony on the south-east side of the Island. One burrow was empty, and four contained fully feathered juveniles with traces of down on the neck and thighs.

Small downy Short-tailed Shearwater young are difficult to distinguish from those of the Fleshy-footed Shearwater (*Puffinus carneipes*), which is the common all-dark shearwater in the Recherche. We compared fresh specimens of almost the same weight of both species collected in February 1986 and noted that Short-tailed Shearwater chicks have darker down; a shorter, darker and narrower bill, especially the unguis; and pinkish-grey or bluish rather than pinkish legs.

Because of the scarcity of beach-washed specimens, and the small size of the colony on Figure of Eight Island it had been assumed that the short-tailed shearwater had only recently colonised the Archipelago of the Recherche. However the large colony on Ben Island indicates that they have been breeding here for a considerable time.

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**Flock Pigeon Observations** — During April, 1985, we stayed at Anna Plains Station (121° 30' East, 19° 14' South) for several days.

There are two hot artesian bores on the station property. One follows the usual bore drain pattern and eventually disappears into the sandy soil. The other, however, has formed and maintains a swampy area of about 200 x 200 m. There is also a considerable amount of shallow open water in the centre of this marsh. This bore water wetland attracts an unusual variety of bird species in an otherwise quite dry pindan woodland.

On the morning of 13 April 1985 we observed two pigeons flying in. While circling overhead we clearly identified them as Flock Pigeons. Headmarkings and size were unmistakable. Subsequently they dropped down into the middle of the open water, sat or floated on it, drank twice and rose again immediately after. This manner of drinking appeared to be very unusual.

Three days later, while crossing Roebuck Plains, just east of Broome, adjacent to a mangal belt, we also recorded a single bird flying past us.

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**Bridled Tern breeding on the Western Australian mainland** — Bridled Tern (*Sterna anaethetus*) is a circum-equatorial species which has increased its breeding range southwards in Western Australia this century (Serventy *et al.* 1971. *Handbook of Australian Sea-birds*). The only known breeding locations are continental islands.

On 1-3 January 1985 at Knobby Head (34°15'S, 115°01'E) near Cape Hamelin, four nests with single eggs were located in fissures in granite or in holes in overlying limestone. On 25 January 1986, two nests each had one egg; one nest was in a limestone nodule on granite, the second was in a horizontal fissure between limestone and granite. Adult birds which were incubating the eggs continued to fly around or perch on nearby rocks after being disturbed. In January 1986 at least 100 birds were flying around the nearby Honeycomb Rocks and Scotsman Rock. Similar